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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	William B. Boyle
Appl. No.	:	09/747,002
Filed	:	December 22, 2000
For	:	METHOD AND APPARATUS FOR STORING A STREAM OF VIDEO DATA ON A STORAGE MEDIUM
Examiner	:	Jamie J. Vent
Group Art Unit	:	2616

DECLARATION OF WILLIAM B. BOYLE PURSUANT TO 37 C.F.R. § 1.132

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

I, William B. Boyle, declare as follows:

1. I am the sole inventor of the claimed subject matter of the above-captioned patent application.

2. I have reviewed the above-captioned patent application, including the specification, the originally-filed claims, and the currently-pending claims. I have also reviewed the September 13, 2005 Final Office Action and the November 17, 2005 Advisory Action in the above-captioned patent application, including the rejection of Claims 17-29 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,134,384 issued to Okamoto et al. ("Okamoto") in view of U.S. Patent No. 6,792,000 issued to Morinaga et al. ("Morinaga"). I have also reviewed the Okamoto and Morinaga references.

3. Okamoto discloses a system and method for recording on and reproducing from a magnetic tape a digital signal using a plurality of rotating heads. Because magnetic tape is a sequentially-accessed storage medium, it cannot be randomly accessed, as can hard disk drives. Furthermore, data is formatted on magnetic tape in sequential parallel linear tracks, each track

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comprising various blocks with subareas containing various datafields. Okamoto discloses adding error correction codes to digital signals being recorded onto the magnetic tape using a first rotating head and reproducing the recorded signal and the added error correction codes using a second rotating head concurrently with the recording of the signal onto the magnetic tape. The system disclosed by Okamoto uses the reproduced error correction codes to detect errors in the reproduced signal. In this way, Okamoto discloses a system and method for confirming the accuracy of digital signals recorded onto a sequentially-accessed medium such as magnetic tape.

4. Morinaga discloses a system and method for recording transport streams onto a hard disk drive, which is a non-sequentially-accessed storage medium. Such hard disk drives typically have one or more platters, each platter being used only with a single read/write head. Data is formatted on the platters in concentric circular tracks, each track comprising a plurality of sectors. The hard disk drive is addressable on boundaries between the sectors.

5. Because the hard disk drive disclosed by Morinaga is a non-sequentially-accessed storage medium, a single head can be directed to a particular portion of the corresponding platter to confirm the accuracy of a particular recorded signal. There is no need for a plurality of heads to concurrently record digital signals and confirm the accuracy of the recorded digital signals on the hard disk drive, as there is for the sequentially-accessed storage medium (magnetic tape) disclosed by Okamoto.

6. Persons skilled in the art would not be motivated to combine the hard disk drive disclosed by Morinaga with the system and method disclosed by Okamoto since hard disk drives as disclosed by Morinaga do not require the simultaneous playback for confirming the accuracy of signals recorded on magnetic tape as disclosed by Okamoto.

7. Because of the differences between the sequentially-accessed medium of magnetic tape and the non-sequentially-accessed medium of a hard disk drive, including differences in the data formats of these two types of media, the hard disk drive disclosed by Morinaga cannot be easily substituted for the magnetic tape disclosed by Okamoto. Such a substitution would require changing the data formats disclosed by Okamoto from those of sequentially-accessed media to those of non-sequentially-accessed media. Such a substitution would also require changing the mechanisms which record and reproduce the signals and the added error correction codes. Thus, combining the disclosure of Morinaga with the disclosure of Okamoto would require a

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substantial reconstruction and redesign of the elements shown in the Okamoto reference as well as a change in the basic principle under which the system and method of Okamoto was designed to operate.

8. As disclosed by the present application at page 6, lines 6-10, in certain embodiments, the claimed invention of the present application provides modified transport packets which "align[] more often with the first byte of a sector so that the system 1 can more efficiently access the video data" stored on the hard disk drive and to enable "trick play" functions (such as fast forward, reverse, rewind, skip) without loss of synchronization. This more frequent alignment and smaller cluster size "provides for more efficient access to the stored video data because the synchronization performance is improved and repeated re-locking of a decoder ... is avoided." (*see*, present application at page 7, lines 20-23.) In contrast, neither Okamoto nor Morinaga discloses or suggests such an advantage, and persons skilled in the art would not expect such an advantage from the combination of Okamoto in view of Morinaga.

9. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made upon information and belief are believed to be true; and further, that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001, Title 18 of the United States Code, and that willful, false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: 12/19/05

By: William B. Boyle
William B. Boyle

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